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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,047	01/08/2001	Takuji Goda	K-1951	6751

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EXAMINER	
PIZIALI, ANDREW T	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/755,047	GODA ET AL.	
	Examiner	Art Unit	
	Andrew T. Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8 and 10-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 5/11/2006 has been entered. The examiner has withdrawn the objection to claim 10 based on the amendment to claim 10. Applicant's amendment necessitated the new grounds of rejection presented in this Office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 8 and 10-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Regarding claims 8 and 10, the specification is silent regarding "the insulating film being capable of substantially preventing diffusion of metal ions of the electrode film into the alkali-containing glass substrate." Regarding claims 11 and 12, the specification is silent regarding "the insulating film being capable of substantially preventing diffusion of the electrode film metal ions into the alkali-containing glass substrate."

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear if the insulating film has been heated at 550C for 1 hour or if the insulating layers is simply capable of possessing the claimed electrical resistance if one was to have heated the material at 550C for 1 hour.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,124,026 to McCurdy et al. (hereinafter referred to as McCurdy) in view of USPN 5,811,923 to Zieba et al. (hereinafter referred to as Zieba).

Regarding claims 8 and 11, McCurdy discloses an article comprising an alkali-containing glass substrate, a barrier layer (corresponding to the claimed under layer) for preventing diffusion of alkali ions formed on a surface of the alkali-containing glass substrate, an absorbing coating (corresponding to the claimed barrier film) mainly formed of tin oxide deposited on the under layer, an SiO_2 film (corresponding to the claimed insulating film) deposited on the barrier

film, and a conductive coating (corresponding to the claimed electrode film) (see entire document including column 3, lines 9-32 and column 4, lines 12-65).

It is noted that McCurdy specifically discloses that the barrier layer (corresponding to the claimed under layer) is capable of preventing diffusion of alkali ions formed on a surface of the alkali-containing glass substrate (column 4, lines 34-43). It is further noted that although McCurdy does not specifically disclose that the SiO_2 film (corresponding to the claimed insulating film) possesses the claimed surface electrical resistance of from 1.0×10^6 ohms/square to 1.0×10^{16} ohms/square even after heating process at 550 degrees C for 1 hour, McCurdy does discloses that the film may be a SiO_2 film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO_2 film may be used as the insulating layer to obtain the claimed surface electrical resistance (see page 11, lines 6-13), and considering that the specification does not teach or suggest that anything else is done to control the resistance of the film, it appears that the SiO_2 film taught by McCurdy inherently possesses the claimed surface electrical resistance.

McCurdy discloses that the conductive coating enables the article to dissipate static charges and that it "generally" is applied onto the absorbing coating prior to applying the SiO_2 film (column 4, lines 44-51). McCurdy does not specifically state that the conductive coating is to be deposited on the SiO_2 film (the exterior of the article), but Zieba discloses that it is known in the glass substrate static dissipating art to deposit a conductive coating on the exterior of an article to provide static discharge (see entire document including column 7, lines 8-22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to deposit the conductive coating on the SiO_2 film (the exterior of the article), as taught by Zieba,

because the exterior location is a viable alternative to the disclosed interior location and because it is within the general skill of a worker in the art to select a known location on the basis of its suitability.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding the insulating layer, McCurdy discloses the use of a SiO_2 film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO_2 film may be used as the insulating layer (see page 11, lines 6-13), it appears that the SiO_2 film taught by McCurdy inherently

possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

Regarding the claimed use of the glass substrate for a display, considering that the glass substrate taught by the applied prior art is identical to the claimed glass substrate, it appears that the glass substrate taught by the applied prior art is capable of performing the intended use. It is noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

8. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,124,026 to McCurdy in view of USPN 5,811,923 to Zieba as applied to claims 8 and 11 above, and further in view of USPN 5,288,558 to Nothe.

McCurdy discloses that conventional conductive coatings generally recognized within the art may be suitable for use as the conductive coating (corresponding to the claimed electrode film) (column 4, lines 52-65), but McCurdy does not appear to specifically mention the use of gold. Nothe discloses that it is known in the anti-reflective coating art to apply an outer conductive gold layer over a silicon oxide layer for a neutral-colored reflection elimination effect (see entire document including column 2, lines 20-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the conductive coating from gold, as taught by Nothe, for a neutral-colored reflection elimination effect and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). In addition, the gold conductive coating is the same material claimed by the applicant as the material for the electrode film. Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of the gold ions of the electrode film into the glass substrate.

Regarding the insulating layer, McCurdy discloses the use of a SiO_2 film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO_2 film may be used as the insulating layer (see page 11, lines 6-13), it appears that the SiO_2 film taught by McCurdy inherently possesses the ability to substantially preventing diffusion of gold ions of the electrode film into the glass substrate.

9. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,124,026 to McCurdy in view of USPN 5,811,923 to Zieba as applied to claims 8 and 11 above, and further in view of USPN 6,992,425 to Ishikawa et al. (hereinafter referred to as Ishikawa).

McCurdy discloses that conventional conductive coatings generally recognized within the art may be suitable for use as the conductive coating (corresponding to the claimed electrode film) (column 4, lines 52-65), but McCurdy does not appear to specifically mention the use of silver, copper or gold. Ishikawa discloses that it is known in the anti-reflective coating art to

apply an anti-static conductive silver, copper or gold layer over a silicon oxide layer for anti-static and/or electromagnetic shielding (see entire document including column 2, line 49 through column 3, line 35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the conductive coating from copper, silver or gold, as taught by Ishikawa, for anti-static and/or electromagnetic shielding and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). In addition, the silver, copper or gold conductive coating is the same material claimed by the applicant as the material for the electrode film. Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of the silver, copper or gold ions of the electrode film into the glass substrate.

Regarding the insulating layer, McCurdy discloses the use of a SiO_2 film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO_2 film may be used as the insulating layer (see page 11, lines 6-13), it appears that the SiO_2 film taught by McCurdy inherently possesses the ability to substantially preventing diffusion of silver, copper or gold ions of the electrode film into the glass substrate.

Response to Arguments

10. Applicant's arguments filed 5/11/2006 have been fully considered but they are not persuasive.

The applicant asserts that the absorbing coating (corresponding to the claimed barrier film) and the SiO_2 film (corresponding to the claimed insulating film) of McCurdy would not be capable of substantially preventing diffusion of metal ions of the electrode film into the glass substrate. The examiner respectfully disagrees.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

Regarding the insulating layer, McCurdy discloses the use of a SiO_2 film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO_2 film may be used as the insulating layer (see page 11, lines 6-13), it appears that the SiO_2 film taught by McCurdy inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

The applicant asserts that there is no teaching or suggestion to combine McCurdy with Zieba. The examiner respectfully disagrees. McCurdy discloses that the conductive coating enables the article to dissipate static charges and that it "generally" is applied onto the absorbing

coating prior to applying the SiO_2 film (column 4, lines 44-51). McCurdy does not specifically state that the conductive coating is to be deposited on the SiO_2 film (the exterior of the article), but Zieba discloses that it is known in the glass substrate static dissipating art to deposit a conductive coating on the exterior of an article to provide static discharge (see entire document including column 7, lines 8-22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to deposit the conductive coating on the SiO_2 film (the exterior of the article), as taught by Zieba, because the exterior location is a viable alternative to the disclosed interior location and because it is within the general skill of a worker in the art to select a known location on the basis of its suitability.

Conclusion

11. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

6/23/06

ANDREW T. PIZIALI
PATENT EXAMINER